




The Relentless Pursuit of Program Management and Acquisition Excellence

Col. Mun H. Kwon, USAF



he new Program Management Assistance Group, part of the Space and Missile Systems Center (SMC) at Los Angeles Air Force Base, Calif., seeks to enhance the probability of successful mission accomplishment for its team members and across Air Force acquisitions. How is the PMAG accomplishing this?

Kwon is the director of the Program Management Assistance Group at Los Angeles Air Force Base, Calif.

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Content-Based Program Management

Simply put, there are too many programs with baseline execution problems, resulting in marginal program stability. Acquisition Category I acquisitions are slow and built on cumbersome processes infamous for cost overruns, schedule slips, and performance problems. We have too many acquisition-certified program managers who are not adequately trained or sufficiently skilled in crafting executable baselines that would assure program stability. There are numerous times in which DoD had good processes in place but lacked disciplined execution as a result of inadequate understanding of the content-based program execution. As a result, the acquisition community fails to comply with proven processes from its own policies, instructions, and regulations.

Program management demands a complex and high level of intelligence, knowledge, and experience. However, hands-on experience and program know-how are hard to come by because too often, military and civilian personnel rotate out of their positions as soon as they become subject matter experts. The PMAG mitigates the impact of rotation requirements by filling in the holes such rotations inevitably cause. By assisting and supplementing wing commanders and program offices in fixing common problems, the PMAG raises core competencies in a program management office and provides cross-cultural experience that can benefit numerous programs. Although the PMAG is an Air Force-specific organization, the methodology and lessons learned it provides can benefit the entire acquisition community.

PMAG Revitalization

The PMAG was first established in 1975 at Headquarters, Air Force Systems Command, but was dissolved in the early 1990s. The concept was resurrected and redesigned in July 2007 at the SMC. Consisting of a relatively small cadre of professionals, the PMAG was put in place at SMC

to help mitigate program management, system integration, and program control deficiencies. In doing so, the PMAG strengthens government organic capabilities by establishing a high-performance and content-based culture. The PMAG institutionalizes the Air Force's drive for change, creating a corporate culture that has integrated itself across programs and across locations, starting at SMC and propagating across the Air Force. In fact, a March 18, 2009, secretary of the Air Force memo tasks Air Force Materiel Command senior leaders and the PMAG director with developing an action plan, including a timeline to establish the PMAG capability across the Air Force.

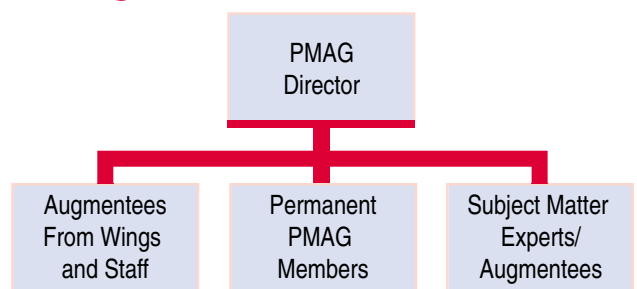
The PMAG has been so successful that the center's commander believes the PMAG initiative will help reestablish SMC's excellence and reputation. It has become SMC's leading program management agency for providing program management, systems integration, and program control expertise to program managers. The group earned its credibility through its expertise and close, collaborative relationships with its integrated staffs; industry partners; the Federally Funded Research and Development Center (FFRDC); the Defense Contract Management Agency; systems engineering and technology assistance contractors; and its customers, which include six Air Force wings and two direct report groups. This collaboration has resulted in many program milestone successes, including the Space Based Space Surveillance integrated baseline review, the Space Based Infra Red System engineering manufacturing development design review and integrated baseline review, the Space Based Infra Red System follow-on production system requirement review and preliminary design review, the Expeditionary Combat Support System integrated master plan workshop assistance, and GPS IIIA program startup assistance.

The PMAG Team

A PMAG project can be initiated by the center's commander, vice commander, executive director, wing commanders, acquisition commanders, and staff directors. The PMAG director works with the appropriate leadership to determine a program's needs and to assign team members.

The PMAG team goal is to create a true integrated program management team that can provide knowledge, expertise,

PMAG Organizational Structure



and training that the wing does not have or cannot provide. The PMAG seeks to maintain a lean operation of 10 to 15 permanent members. The core team is supplemented as needed. Augmentees are selected by the PMAG director on an as-needed basis to assist with project teams and provide extra capabilities, and they are chosen based on their subject-matter expertise and backgrounds with multiple programs. Augmentees may be selected from civilian, military, aerospace, or contractor positions. Interns, graduates on presidential management fellowships, and even second lieutenants have been given project management leadership opportunities, mentored by the experienced PMAG core; and they develop competencies and program management execution knowledge that they will take with them throughout their careers. It is a win-win situation for the wings, as individuals who have received valuable touch-time experience are later hired into their organizations. The PMAG augmentee becomes a valuable team member in the wing.

The PMAG team composition allows for a flexible group of subject matter experts who can learn from different programs and provide lessons learned and best practices from one program to another. Most important, PMAG members are not simply consultants; they are participants who roll up their sleeves and work hands-on with their customers. By rotating core and augmentee staff across programs, a life cycle system integration focus is developed and applied.

Key to PMAG's methodology is its multi-disciplinary team approach in which every participant brings a unique expertise. Members are holistically focused; enthusiastic to apply integrated program management capabilities with a strong technical background; and driven to exceed their own expectations and limitations for the benefit the rest of the team, the customer, and the Air Force enterprise.

By relentlessly pursuing continuous improvements in all SMC business cases, PMAG has learned to not merely exchange ideas, but to jointly mitigate program deficiencies with its customers. Such business cases include development of requirements definitions, acquisition strategies, requests for proposal, source selections, integrated baseline reviews, design reviews, and deployment processes, as addressed in the PMAG framework. Such collaborative relationships spark further collaborations between programs, creating a cycle of success.

A key step in changing the current acquisition culture and training new acquisition professionals is to propagate the PMAG's methods, culture, and lessons learned. True knowledge in acquisitions comes not in a classroom, but from on-the-job training; and from seeing, doing, and experiencing passionate mentoring and coaching efforts.

GPS IIIA Program Startup Assistance

From Nov. 13, 2007, to Oct. 31, 2008, PMAG distinguished itself by supporting the SMC's \$1.4 billion GPS Block IIIA

integrated baseline review team. As GPS Commander Col. David Madden stated in a Nov. 14, 2008, issue of *Aerotech News and Review*, "The PMAG, SMC's program management experts, were an integral part of the overall process providing application-oriented training, templates, analyses and assessments vital to IBR success."

The integrated baseline review was designed in three stages:

- The content stage established the program technical baseline content.
- The integrity stage established the scope and schedule baselines.
- The execution stage established the performance measurement baseline.

The stages allowed for detailed establishment of robust cost, schedule, and technical baselines to ensure program executability. The overall process took nearly 11 months.

The PMAG team was an integral part of the overall integrated baseline review process, providing application-oriented training, criteria templates, analyses, and assessments vital to the success of the integrated baseline review—the most comprehensive review ever undertaken at SMC. PMAG's three-phased risk formulation, control account manager notebook evaluation training, program planning, robust baseline review practice, and collaboration with the contractor's program startup assistance team succeeded in building a strong, organic, integrated program management capability within the wing and

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the prime contractor's operation. The three-phased startup integrated baseline review verified and validated technical, schedule, and cost performance aspects of the baseline, encompassing more than 600 control accounts in total. The PMAG conducted close to 180 critical and near-critical path control account assessments to ensure the crucial \$1.4 billion performance measurement baseline was executable.

The program startup assistance with the integrated baseline review was accomplished through unprecedented cooperation with the wing, integrated staff, the FFRDC, systems engineering and technology assistance contractors, and industry partners to provide integrated program management, program control, and system integration expertise. PMAG worked to develop new methodologies and incorporate lessons learned from other successful programs, providing detailed instruction to the wing to ensure further program success.

PMAG travelled across the country to the contractor's facilities, spent countless hours poring over the contractor's materials, and coordinated with the wing on reviews. PMAG acted both independently and in sync with the wing, providing comprehensive training sessions, reviewing the same materials as the wing to develop independent assessments, and working in tandem with the wing to develop a solid and robust baseline. By introducing successful elements from other programs on base, by acting as a servant leader to the wing, and by applying its own unique integrated nature to the project, the PMAG team was successfully able to assist the wing in accomplishing the most comprehensive integrated baseline review performed at SMC. It is because of such success that PMAG has thrived, working with more wings on additional projects, and providing true integrated life cycle support to the programs at SMC and a developing knowledgebase from which other programs can tap into.

Keys to Success

PMAG's overall function through startup assistance efforts is to formulate integrated life cycle risks to support the PMAG's life cycle program assurance framework. The integrated baseline review then leads to design reviews (assembly, subsystem, element, segment, and system-level program design reviews), with detailed specification review, design review data packages, and the formulation of additional risks. The PMAG works with the program to mitigate risks, and the group stays with the programs for as long as the organization is needed. The PMAG is an integrated program management staff, supplementing and

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assisting the wing's efforts; providing advice, training, and lessons learned; and augmenting organic capability, from cradle to grave, for every major defense acquisition program that needs it.

The PMAG team is successful because all those involved become holisti-

cally capable by moving beyond their own strengths. Because the key to the group is its powerful integrated capability—integrated, multi-disciplinary teams—the final product reflects a variety of viewpoints. The strength of the group becomes the strength of the individual as teams work together to craft high-quality products. The strength of the individual is found in the group, as new viewpoints and expertise are brought in to augment and supplement other members of a project team. There are often many projects being worked simultaneously, with the PMAG team in five different places working 10 different projects with augmentees from wings, the FFRDC, integrated staff, and supporting teams. Knowledge and experience gained by augmentees and team members is returned to their parent organizations.

The PMAG brings substance through disciplined execution and focuses on content while deemphasizing automatic delegation. A fundamental aspect of the PMAG is the integrated team's approach to producing compounded program management products and services.

We Must All Continue to Improve

If you take nothing else with you from this article, take this: We can do better. We must do better. If we all remember what it is that truly inspires us—about service, about development acquisitions, about our country—we can reinvigorate the acquisitions community. Complacency and passivity cannot permeate our culture. Competency, collaboration, and content-based performance—these are the keys to our success. We all must do the innovative work necessary to make DoD acquisitions better. We all must grow as leaders, developing ourselves, cultivating change, and continuously pushing the envelope for improvement. And most important, we can grow only by working together. It is that personal growth, through cooperation and leadership, for the benefit of the Air Force and the acquisition community, that the PMAG strives to achieve.

The author welcomes comments and questions and can be contacted at mun.kwon@losangeles.af.mil.